



NOTES

NEURODEVELOPMENTAL DISORDERS

GENERALLY, WHAT ARE THEY?

PATHOLOGY & CAUSES

- Mental disorders causing difficulties in everyday activities/skills (e.g. communication, learning), occurring over an extended period, beginning during development
- Often causes social isolation/anxiety → depression

CAUSES

- Genetic, environmental

COMPLICATIONS

- Reduced success in various areas of life (esp. social, academic)

SIGNS & SYMPTOMS

- See individual disorders

DIAGNOSIS

- See individual disorders

TREATMENT

- Not curative
- See individual disorders

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

osms.it/ADHD

PATHOLOGY & CAUSES

- Developmental disorder characterized by inattentiveness/hyperactivity/impulsiveness, lasting for > six months

TYPES

- Inattentive, hyperactive/impulsive, or both

CAUSES

- Genetic, environmental
- Associated with neurotransmitter activity (low amounts of dopamine/norepinephrine)

COMPLICATIONS

- Reduced success in various areas of life (esp. social, academic)

VISIT...

LANZAROTE
Caliente.COM

SIGNS & SYMPTOMS

- Inattentiveness (careless mistakes, not listening, easily distracted)
- Hyperactivity/impulsiveness (restlessness)
- Developmental delay (e.g. in linguistic/ social/ motor skills)

DIAGNOSIS

- For inattentive diagnosis, $\geq$ six of following ($\geq$ five if age > 16)
 - Makes careless mistakes/overlooks details
 - Struggles to stay focused
 - Doesn't appear to listen
 - Doesn't follow instructions
 - Has poor organizational skills
 - Avoids mentally-engaging tasks
 - Often loses things
 - Is easily distracted
 - Is forgetful
- For a hyperactive/impulsive diagnosis, $\geq$ six of following ($\geq$ five if age > 16)
 - Often fidgets

- Struggles to stay seated
- Restless
- Struggles to keep quiet
- Likes to keep moving
- Talks before others have finished
- Doesn't like waiting
- Interrupts/bothers others

- Symptoms for either category must
 - Persist $>$ six months
 - Present $<$ 12 years old
 - Present in multiple settings
 - Affect day-to-day functioning
 - Not caused by other condition

TREATMENT

MEDICATIONS

- **Stimulants** to slowly release neurotransmitter (e.g. amphetamines = Adderall/ methylphenidate = Ritalin)

PSYCHOTHERAPY

- **Behavioral therapy** focused on decreasing distractions/improving time management, organizational skills

AUTISM SPECTRUM DISORDER (ASD)

osms.it/autism

PATHOLOGY & CAUSES

- Developmental disorder characterized by difficulties with **social interaction/ communication** as well as **restricted/ repetitive behaviors**, interests, activities
- Encompasses autism, Asperger syndrome, childhood disintegrative disorder, and PDD-NOS (pervasive developmental disorder not otherwise specified)

CAUSES

- Genetic, environmental

COMPLICATIONS

- Reduced success in various areas of life (esp. social, academic)

SIGNS & SYMPTOMS

- Difficulties with social interaction, communication (doesn't understand others' emotions/respond to them, struggles to make friends)
- Restricted/repetitive nature regarding particular behaviors/interests/activities

DIAGNOSIS

- Struggles with social interaction/communication
 - Poor emotional reciprocity (doesn't respond to/communicate emotions, thoughts)
 - Poor non-verbal communication (especially poor understanding thereof)
 - Impaired joint attention (doesn't share interests with others)
 - Difficulty in developing/maintaining relationships

- Restricted/repetitive behaviors, interests, or activities, with $\geq$ two of following
 - Repetition of particular movements/phrases
 - Specific routines/rituals, resistant to change
 - Restricted interests (e.g. highly specific knowledge in a subject)
 - Highly sensitive to/interested in surroundings
- Symptoms must have been present in development, and affect day-to-day functioning
- Not caused by other condition

TREATMENT

PSYCHOTHERAPY

- Educational programs, behavioral therapy tailored to individual

DISRUPTIVE, IMPULSE CONTROL, AND CONDUCT DISORDERS

osms.it/conduct-disorder

PATHOLOGY & CAUSES

- Mental disorders characterized by **impulsive behaviors** or a general lack of self-control
- No underlying motives for resulting behaviors
- Tend to start in childhood and persist into adulthood
- Includes
 - Conduct disorders
 - Intermittent explosive disorder
 - Oppositional defiant disorder
 - Pyromania
 - Kleptomania

CAUSES

- Generally unknown (genetic + environmental); tend to run in families



MNEMONIC

Conduct disorders are seen in **C**hildren

Antisocial personality disorder is seen in **A**dults

SIGNS & SYMPTOMS

- Persistent, aggressive or harmful behaviors
 - May involve aggression or harm towards other individuals or animals
 - May involve damage to or stealing physical property

TREATMENT

PSYCHOTHERAPY

- Focused on therapy, not medications
- Cognitive behavioral therapy, social skills training, anger management, parent management training

DIAGNOSIS

- Multiple impulsive behaviors observed over an extended period of time

IMPULSE CONTROL & CONDUCT DISORDERS

	SIGNS & SYMPTOMS	DIAGNOSIS
ATTENTION DEFICIT DISORDER	Inattentiveness, hyperactivity, restlessness, impulsive Social/motor/linguistic developmental delay	Present > 6 months, multiple settings, distresses daily life
OPPOSITIONAL DEFIANT DISORDER	Willful defiance	Present > 6 months; distresses daily life
CONDUCT DISORDER	Willful aggression	Present 12 months (continuous) in individuals < 18 years old; distresses daily life
INTERMITTENT EXPLOSIVE DISORDER	Repeated self-control loss (may involve aggression), otherwise normal daily temperament Feels post-outbreak guilt/remorse	6 years/older, unprovoked, distresses daily life

LEARNING DISABILITY

osms.it/learning-disability

PATHOLOGY & CAUSES

- Difficulty with learning/developing certain skills

TYPES

- **Dyslexia**: difficulty reading
- **Dysgraphia**: difficulty writing
- **Dyscalculia**: difficulty with mathematics

CAUSES

- Genetic, environmental
- Not due to lack of intelligence/desire to learn/education

COMPLICATIONS

- Reduced success in various areas of life (esp. academic)

SIGNS & SYMPTOMS

- Difficulty with learning/developing certain skills
 - **Dyslexia**: slow, effortful reading/poor understanding
 - **Dysgraphia**: poor spelling, grammar, handwriting
 - **Dyscalculia**: poor arithmetic
- Often comorbid with anxiety, depression

DIAGNOSIS

- $\geq$ one of following for at $\geq$ six months
 - Poor reading skills
 - Poor reading comprehension
 - Difficulties with spelling
 - Other difficulties with written language
 - Trouble with mathematics
 - Trouble with mathematical reasoning
- Academic skills significantly lower than what would otherwise be expected, as confirmed by testing
 - Learning difficulties must begin during school years but may not be problematic until later
- Not caused by other condition/environmental factor

TREATMENT

OTHER INTERVENTIONS

- Modified approaches to **education** (e.g. one on one tutoring)
- Specific **techniques/workarounds** dependent on symptoms (e.g. using specific fonts to alleviate dyslexia)

TOURETTE SYNDROME

osms.it/tourette-syndrome

PATHOLOGY & CAUSES

- Developmental disorder characterized by tics (rapid, repeated, involuntary, often inappropriate movements/vocalizations)
 - **Simple:** short, involving particular body part
 - **Complex:** comprised of multiple simultaneous tics

TYPES

- **Motor tics:** repeating movements of others (echopraxia), making obscene gestures (copropraxia)
- **Vocal tics:** repeating same words/phrases (echolalia, palilalia), blurting out inappropriate language (coprolalia)

CAUSES

- Genetic, environmental

COMPLICATIONS

- Often comorbid with anxiety, depression

SIGNS & SYMPTOMS

- Simple/complex tics of either/both types

DIAGNOSIS

- $\geq$ two motor tics, $\geq$ one vocal tic
- Must last $\geq$ one year from first tic
- Must start < 18 years old
- Not caused by other condition/substance

TREATMENT

MEDICATIONS

- Antipsychotics/epilepsy medications (only in severe cases)
- Botox injections may decrease appearance of facial tics

PSYCHOTHERAPY

- Cognitive behavioral therapy
- Habit reversal training